

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE MINNESOTA DEPARTMENT OF TRANSPORTATION

In the Matter of the Application of the
City of Inver Grove Heights for the
Establishment of a New Public Grade
Crossing of the Union Pacific Railroad
Tracks over the Proposed Clark Road
Extension in the City of Inver Grove
Heights, Minnesota.

**FINDINGS OF FACT,
CONCLUSIONS,
RECOMMENDED ORDER
AND MEMORANDUM**

The above-entitled matter came on for hearing on April 25, 2000 before Administrative Law Judge Kenneth A. Nickolai at the Minnesota Office of Administrative Hearings, 100 Washington Avenue S., Suite 1700, Minneapolis, Minnesota.

Tona T. Dove, LeVander Gillen & Miller, P.A., 633 South Concord Street, Suite 400, South Saint Paul, Minnesota 55075 appeared on behalf of the City of Inver Grove Heights (hereinafter "the City" or "Applicant"). David A. Donna, 4200 IDS Center, 80 South 8th Street, Minneapolis, Minnesota 55402 appeared on behalf of the Union Pacific Railroad Company (hereinafter "Union Pacific"). Vance B. Grannis, Jr., Grannis & Hauge, P.A., 200 Town Centre Professional Building, 1260 Yankee Doodle Road, Eagan, Minnesota, 55121-2201 appeared on behalf of the Gainey Realty and Investment Corporation (hereinafter "Gainey Realty"). Tim Nolan, Rider, Bennet, Egan & Arundel, 333 South Seventh Street, Suite 2000, Minneapolis, Minnesota 55402 appeared on behalf of Ferrellgas. Karl Knutson, Representative for the Brotherhood of Maintenance of Way Employees (hereinafter "BMWE"), 2616 West River Parkway, Minneapolis, Minnesota 55406 appeared on behalf of BMWE. Robert G. Swanson, Director - Railroad Administration Section, Minnesota Department of Transportation, Suite 925 Kelly Annex Transportation Building, Saint Paul, Minnesota 55155, appeared on behalf of the staff of the Minnesota Department of Transportation.

The hearing lasted one day, and the record in this matter closed upon the close of the hearing on April 25, 2000.

NOTICE

Notice is hereby given that, pursuant to Minn. Stat. 14.61, and the Rules of the Department of Transportation, and the Rules of the Office of Administrative Hearings, exceptions to this Report, if any, by any party adversely affected must be filed within ten

days of the mailing date hereof with Elwyn Tinklenberg, Commissioner of Transportation, 4th Floor, Transportation Building, 395 John Ireland Boulevard, Saint Paul, Minnesota 55155. Proposed Findings of Fact, Conclusions and Order should be included, and copies thereof shall be served upon all parties. If desired, a reply to exceptions may be filed and served within ten days after the service of the exceptions to which a reply is made. Oral argument before the Commissioner may be permitted to all parties adversely affected by the Administrative Law Judge's recommendation who request such argument. Such request must accompany the filed exceptions or reply filed with the Commissioner.

The Minnesota Department of Transportation will make the final determination of the matter after the expiration of the period for filing exceptions as set forth above, or after oral argument, if such is requested and had in the matter.

Further notice is hereby given that the Commissioner may, at his own discretion, accept or reject the Administrative Law Judge's recommendation and that said recommendation has no legal effect unless expressly adopted by the Commissioner as his final order.

STATEMENT OF ISSUES

Whether a public grade crossing should be established across the track of the Union Pacific Railroad at the location of the proposed Clark Road extension in the City of Inver Grove Heights, Dakota County, Minnesota, and if so, what safety devices must be installed.

Based on all of the proceedings herein, the Administrative Law Judge makes the following:

FINDINGS OF FACT

Procedural History

1. On December 27, 1999, the City Council of Inver Grove Heights passed a resolution, which states in part:

- (a) As part of the overall improvement plan for the T.H. 52/55 area, it is necessary, desirable and in the public interest to establish, construct, and open for public travel a new grade crossing of the Union Pacific Railroad tracks across the Clark Road Extension in order to improve access, increase convenience, promote industrial development and provide safer access to T.H. 52/55;
- (b) A drawing depicting the location of the new grade crossing is attached hereto, marked as Exhibit A, and made a part hereof;

- (c) Based upon the recommendation of the City's consultant, a combination of lights and cross arms are the appropriate warning devices for the new grade crossing;
- (d) As part of Improvement Project 1997-21, access points along T.H. 52/55 will be consolidated by closing three existing median crossings located north of 117th Street and an existing frontage road west of T.H. 52/55, and
- (e) The City and the Railroad have been unable to reach any agreement concerning establishment of the grade crossing;

****[\[1\]](#)

2. Pursuant to the December 27, 1999 Resolution, the City petitioned the Minnesota Department of Transportation (hereinafter "the Department") to approve a grade crossing. The City indicated that the warning devices would consist of "flashing light signals and cross arm gates."[\[2\]](#)

3. After attempting to work out the differences between the parties, the Commissioner issued an Order for Hearing and Notice Thereof on March 1, 2000. This was served by mail on all interested parties. The hearing was set on for April 25, 2000, and notice of the hearing was published in the Department's Rail and Motor Carrier Proceedings Notice and Hearing Bulletin on March 31, 2000 and April 7, 2000.

Description of Proposed Crossing

4. The proposed railroad crossing is located in Dakota County, in the southeastern portion of the City of Inver Grove Heights. The proposed rail crossing will be established by the extension of Clark Road north of 117th Street running approximately one mile, exiting onto State Trunk Highway 52 (hereinafter "TH52/55"). The rail line crosses TH52/55 to the east of the proposed crossing at-grade. The existing at-grade crossing with TH52/55 is comprised of one set of rail tracks crossing three lanes in each direction. Two of those lanes are traffic lanes with a posted speed of 65 miles per hour. The remaining lane in each direction is a truck-stopping lane. The at-grade crossing of TH52/55 is controlled by signal lights. No gates are located there.

5. The proposed crossing would occur approximately six hundred feet west of the existing TH52/55 crossing and 850 feet north of 117th Street. The topography in this area consists of uneven ground covered by brush and some trees. To the immediate north of the rail line is undeveloped property. Further north, three houses lie along a frontage road to TH52/55 and FerrellGas has a tank farm. North of the FerrellGas property are significant numbers of single family homes. To the south of the

rail line, Praxair has a tank farm, Northern States Power maintains a tank farm (NSP-Inver Hills plant) and substation, and Pabst Meats has a plant. The proposed extension

of Clark Road would roughly follow the existing private roadway used by these businesses. South of 117th Street are additional industrial uses and the Koch Refining plant. Land in the immediate area of the crossing is predominantly occupied by industrial uses, increasing in density to the south. To the west of the proposed at-grade crossing site is the Pine Bend Landfill.

6. Additional development is planned for the area to the immediate north of the proposed crossing, as soon as road access can be provided. That property is owned by Gainey Realty and Investment Corporation (hereinafter "Gainey"). Gainey has entered into a development agreement with the City and will be the primary landowner assessed for the costs of construction for the Clark Road extension.^[3]

7. Gainey will be operating a short-haul trucking firm out of the newly developed location. Within two years, the total number of trucks based on the Gainey property is expected to total 200. Approximately 50 trucks trips per day are expected through the proposed crossing by Gainey trucks. Some of those trucks will be hauling hazardous materials. The other undeveloped land to be served by the Clark Road extension will be sold by Gainey to other enterprises for business uses. FerrellGas will also be using the proposed crossing to access 117th Street, and thereby TH52/55. The traffic from FerrellGas will be primarily trucks hauling flammable gas. In the winter months, FerrellGas originates over one hundred transport trips daily.^[4] All of these trips will use the Clark Road extension and the proposed at-grade crossing. When fully developed, the Clark Road extension is estimated to have 6,800 trips per day.^[5]

8. The track is level at the proposed crossing site. There are no existing structures located immediately adjacent to the track. The proposed Clark Road extension is planned with paved shoulders and roadside ditches to remove storm water runoff.^[6] The proposed crossing will be perpendicular (90 degrees) to the track. There will be a short rise on the north side of the track and a somewhat steeper rise to the south side of the track.^[7] If the proposed crossing is approved, the Applicant has agreed to maintain unobstructed sight triangles at the proposed crossing in accordance with A.A.S.H.T.O. (American Association of State Highway and Traffic Officials) standards. No structure will be placed within any sight triangle area. Existing trees within each sight triangle area will be removed to maintain visibility at the proposed crossing.

9. Approximately 1,000 feet west of the proposed crossing is a Y-intersection on the Union Pacific Railroad line.^[8] Y-intersections are used to turn trains around. The train is backed off of the main line on the nearest arm of the "Y" and continues backward until the front of the train clears the intersection of the two arms. The train then proceeds forward along the other arm of the "Y", now facing in the desired direction. The procedure is performed at slow speed, with a railway employee stationed on the outside of the last car of the train.

10. The Union Pacific Railroad regularly runs up to 4 trains daily over the track where the proposed at-grade crossing is located. Other trains may affect the crossing by turning around at the Y-intersection located 1,000 feet to the west of the proposed crossing. The length of the train may trigger the active warning devices at the

proposed crossing without entering the crossing. Two side tracks branch off of the through track. The first sidetrack branches just west of TH52/55 and serves the Praxair tank farm. That sidetrack does not affect the proposed crossing. The second sidetrack serves NSP-Inver Hills plant and crosses the proposed extension of Clark Road within 100 feet to the south of the proposed at-grade crossing.

11. The maximum speed of trains moving through the proposed crossing is 10 miles per hour and the maximum number of trains expected to traverse the proposed crossing is four per day. The existing spur line serving the NSP-Inver Hills plant has not been used for twenty years. Northern States Power has indicated that it is willing to surrender its rail spur as part of the Clark Road extension project.

12. TH52/55 is currently planned for significant improvement to address serious safety concerns. The current means for FerrellGas trucks to travel north on TH52/55 is to have those trucks cross the southbound lanes of the highway and stop in the median. Those trucks then merge with the northbound traffic on TH52/55. The speed limit on TH52/55 is 65 miles per hour. The highway carried 32,300 automotive trips per day in 1997, and is estimate to exceed 50,000 automotive trips per day by 2013.^[9]

13. If the proposed Clark Road extension is constructed, the current access to TH52/55 will be converted to a "right in, right out" access and the median access will be eliminated. Two other median access points will also be eliminated. The last phase of the TH52/55 upgrade is to separate the existing at-grade crossing with the Union Pacific Railroad track north of 117th Street.

Alternatives to the Proposed Crossing

14. Two alternatives were considered to constructing an at-grade crossing of the rail line at Clark Road. One alternative was a grade-separated crossing and the other alternative was to not build the Clark Road extension (hereinafter "the no-build option"). The grade-separated crossing would entail significant additional cost, since the land in the area is flat and both earthwork to build up the roadway and retaining walls to support the earthwork would be required. Opting for a grade-separated crossing would also deny access to Clark Road by a number of adjacent landowners, which is a major underlying purpose of this project. Due to these factors, the grade-separated option was rejected by the City.

15. The no-build option would leave the current property owners with their existing road access to 117th Street and TH52/55. This road access would require maintaining the median accesses on TH52/55 and prevent modifying the highway to improve safety for motorists.

16. Union Pacific Railroad expressed concern about the proposed crossing because of possible train-truck collisions. Union Pacific maintains that installing an at-grade crossing would degrade public safety, would benefit a single property owner, and conflict with the policies of the United States government and the State of Minnesota

that favor a reduction in the number of at-grade crossings. The federal government has stated a goal of reducing the number of at-grade crossings by 25 percent. The State of Minnesota has adopted a similar policy, instructing the Commissioner of Transportation to "consider that the number of grade crossings in this state be reduced and that public safety will be enhanced by reducing the number of grade crossings."^[10]

17. Due to the proposed layout of the rail crossing, trucks leaving Gainey or FerrellGas will travel south on Clark Road through the proposed at-grade crossing and turn east onto 117th Street to access TH52/55 through the controlled intersection there. For those trucks traveling north on TH52/55, the trucks will turn left at the intersection and cross the at-grade crossing of the railroad tracks at TH52/55. Clark Road will have access to TH52/55 for southbound traffic only, but trucks are not expected to use that access to TH52/55. There is insufficient space for trucks to make a right turn at the Clark road access without blocking traffic on TH52/55. The high speed of traffic on that highway renders unsafe any truck access at that location.

Costs

18. If the crossing is ordered, the Applicant will be assessing benefited property owners to cover the cost of installing the crossing and warning systems and constructing the adjacent roadway.

19. Union Pacific Railroad is unwilling to incur installation or on-going maintenance costs for the proposed crossing. Union Pacific asserts that it receives no benefit from the installation of an at-grade crossing to serve an extension of Clark Road. The installation of an at-grade crossing will result in an increase in maintenance costs to the Railroad due to the increased deterioration of rails by repeated vehicle crossings.

20. The property owners served by the Clark Road extension benefit from the project by obtaining safe access for trucks to TH52/55. Motorists using TH52/55 benefit from the project by removing safety hazards caused by trucks merging with highway traffic and from the modifications to TH52/55 that can be made to improve safety. The Applicant benefits from the project by an increase in the property tax base created by development of the land served by the proposed Clark Road extension. There are no benefits to the Union Pacific Railroad arising out of the installation of an at-grade crossing where the Railroad's track intersects with the proposed extension Clark Road.

Warning Devices

21. The parties agree that, if the proposed crossing is built, it should be guarded by advance warning signs, cross-bucks, and flashing lighted stop signs to comply with Minnesota D.O.T. standards. The Applicant proposed that gates be installed, but did not identify what configuration the gates should take. The BMW indicated that a safe gate configuration would need to prevent motorists from going around lowered gates. The BMW identified adding a concrete median to the center of

Clark Road as it approaches the at-grade crossing or using four-quadrant gates as means to prevent such conduct by motorists.

22. It the Commissioner orders that the proposed crossing be established, construction can begin as soon as practicable.

CONCLUSIONS

1. The Commissioner of Transportation has jurisdiction over the subject matter of the hearing.

2. Proper notice of the hearing was timely given, and all relevant substantive and procedural requirements of law or rule have been fulfilled and, therefore, the matter is properly before the Administrative Law Judge.

3. Under Minn. Stat. § 219.072 and Minn. Rule Pt. 8830.2700, the Applicant, the City of Inver Grove Heights, has the burden of proving, by a preponderance of the evidence, that an at-grade crossing should be constructed at the intersection of the Union Pacific Railroad's track with the proposed Clark Road extension. The City has met this burden.

4. If the Commissioner determines that an at-grade crossing should be constructed at the location mentioned in the forgoing conclusion, the crossing should be constructed with advance warnings, cross-bucks, flashing lighted stop signs and gates adequate to prevent motorists from entering the crossing after the gate arms have lowered.

THIS REPORT IS NOT AN ORDER AND NO AUTHORITY IS GRANTED HEREIN. THE COMMISSIONER OF TRANSPORTATION WILL ISSUE THE ORDER OF AUTHORITY WHICH MAY ADOPT OR DIFFER FROM THE FOLLOWING RECOMMENDATIONS.

Based upon all of the files and proceedings herein, the Administrative Law Judge makes the following:

RECOMMENDATION

That the Petition of the City of Inver Grove Heights for construction of an at-grade public crossing over the Union Pacific Railroad track, approximately 600 feet west of TH52/55 in Dakota County, Minnesota where Clark Road, when extended, crosses the track be GRANTED, provided that the NPS-Inver Hills sidetrack is removed and that adequate gates be installed to prevent motorists from entering the crossing after the gate arms have lowered.

Dated this ____ day of June, 2000.

KENNETH A. NICKOLAI
Administrative Law Judge

NOTICE

Pursuant to Minn. Stat. 14.62, subd. 1, the agency is required to serve its final decision upon each party and the Administrative Law Judge by first class mail.

Recorded: Tape Recorded (Two Tapes)

MEMORANDUM

The City of Inver Grove Heights seeks to improve the overall traffic situation along TH52/55. An important part of the existing traffic problems arises from the entry of trucks onto TH52/55 through uncontrolled intersections. Existing and proposed land uses in the vicinity of 117th Street and TH52/55 place large numbers of trucks, many hauling flammable gas or hazardous materials onto TH52/55. The need for overall improvement to the TH52/55 corridor has been demonstrated.

As part of the TH52/55 corridor improvement and the development of adjacent property for business purposes, the City has proposed to extend Clark Road in a fashion that requires a crossing with the Union Pacific's rail line. The City and Union Pacific were unable to agree on the need for and configuration of that crossing. Therefore, the City petitioned the Commissioner of Transportation under Minn. Stat. § 219.072, which reads:

The establishment of all new grade crossings must be approved by the commissioner. When establishment of a new grade crossing is desired, either by the public officials having the necessary authority or by the railroad company, and the public officials and the railroad company cannot agree as to need, location, or type of warning devices required, either party may file a petition with the commissioner setting forth the facts and submitting the matter for determination. The commissioner, after notice as the commissioner deems reasonable, shall conduct a hearing and issue an order determining the matters submitted. If the commissioner approves the establishment of a new grade crossing, the commissioner may in the same order direct that the costs, including the costs of the type of warning devices required, be divided between the railroad company and the public authority involved as the parties may agree, or, if they fail to agree, then as determined by the commissioner on the basis of benefit to the users of each. However, the commissioner may defer

determination of the division of costs to a subsequent order to be made on the basis of evidence previously taken.

Petitions for establishment of grade crossings are governed by Minn. Rule 8830.2700. Subpart 5 states:

Subp. 5. **Application content requirements.** Applications must be accompanied by relevant documents, data, and material that demonstrate the need for the grade crossing, how safety concerns are addressed, and how the grade crossing affects the public interest. The filing must contain, at a minimum, the following information:

- A. the name of the rail carrier or owner of the track;
- B. the name of the road authority;
- C. maps showing:
 - (1) the general and specific location of the proposed grade crossing;
 - (2) existing and projected patterns of traffic for:
 - (a) emergency vehicles;
 - (b) school buses;
 - (c) vehicles carrying hazardous materials; and
 - (d) trucks;
 - (3) distances to nearest roadway-roadway intersection in both directions, and type of traffic signs and signals at each intersection; and
 - (4) distances to nearest railroad-roadway intersection in both directions, and type of warning devices and signs at each intersection;
- D. plans showing:
 - (1) grade of roadway;
 - (2) grade of tracks;
 - (3) alignment of roadway;
 - (4) alignment of tracks;
 - (5) present property limits and proposed property limits of the road authority and the rail carrier; and
 - (6) locations of objects that could obstruct a driver's view of the grade crossing or an oncoming train;
- E. the proposed schedule of construction;
- F. details of construction;
- G. proposed use by applicant;
- H. existing and projected traffic volumes and speeds, and train frequency, types of trains, whether passenger, freight, or switching, and speeds;
- I. suggested signs or active warning devices; and
- J. a list of considered alternatives to the proposed grade crossing.

Based on the information provided, the Administrative Law Judge recommends granting the petition to establish an at-grade crossing. The current hazards present on TH52/55 are serious and the ongoing development adjacent to the highway will significantly increase both truck traffic and the need for controlled access to TH52/55.

The proposed location for the crossing is appropriate for meeting the needs of businesses in that vicinity.

The location of the crossing will require trucks to cross the Union Pacific railroad tracks southbound and re-cross the same tracks for traveling northbound on TH52/55. Since there are four or fewer trains that use those crossings each day, there is no significant additional risk of collisions using the proposed configuration. As the TH52/55 highway corridor project proceeds, the existing at-grade crossing is proposed for separation (meaning the highway will bridge the railroad tracks) thereby eliminating the second crossing in the near future. No-build and separated-grade options were considered as alternatives to the proposed at-grade crossing. Neither alternative meets the legitimate needs of the property owners in the area. No reasonable alternative to the proposed at-grade crossing exists that will address the need for improved traffic safety on TH52/55.

The BMWWE objected to the lack of specificity in the proposed warning devices for the crossing. The existence of a Y-intersection within 1,000 feet of the proposed crossing is asserted to be an additional safety hazard. The BMWWE suggests that trains using the Y-intersection can trigger active warning devices at the proposed crossing without actually entering the crossing. The BMWWE asserts that such a situation can foster the mistaken belief in drivers that the crossing can be traversed safely when the warning devices are activated. This is a safety concern for both drivers and train crews, made more severe by the hazardous loads hauled by the trucks that are likely to traverse the crossing.

Gainey emphasized that its drivers are held to strict safety standards and that its safety record reflects that commitment. But the Gainey trucking facility will not be the only user of the crossing. Flammable gas trucks from FerrellGas will use the crossing, particularly in the winter months. Further, Gainey expects to sell subdivided portions of its property to other entities for commercial development. These sales have not yet occurred and there is no way of knowing who will be developing these properties. Less stringent crossing control standards cannot be based on driver safety standards for companies that cannot now be identified.

The City maintained that the BMWWE had not introduced any expert testimony to support the claim of a safety hazard and thus the issue need not be addressed. Minn. Rule 8830.2700, subp. 5, requires that applications "demonstrate ... how safety concerns are addressed...." The burden is on the applicant to demonstrate that the proposed crossing is safe. The BMWWE has raised a significant safety concern and that concern has gone un rebutted. The significant volume of motor traffic, the nature of that traffic, and the potential for the activation of warning devices without a train entering the crossing supports the taking of more active measures to prevent motorists from driving around lowered gates.

The warning devices and crossing configuration required for the proposed at-grade crossing must address the possibility of drivers seeking to traverse the crossing

when no train is visible. The first means of accomplishing this goal is to install gates that will bar both proposed lanes in each direction on the Clark Road extension. Depending on cost and feasibility this can be accomplished by two long gates (one for southbound traffic and one for northbound traffic), or four individual lane gates.^[11] Regardless of which configuration is chosen, the Clark Road extension must have a median barrier dividing northbound and southbound traffic approaching the crossing to prevent drivers from going around the gates after they have descended.

Another means of preventing drivers from violating the stopping requirement is to install four-quadrant gates. These gates would close the entry lanes to the crossing from each direction and, a few seconds later, close the exits from those lanes.^[12] With the four-quadrant configuration there is no need for a median separation between the northbound and southbound lanes on Clark Road approaching the at-grade crossing.^[13]

Whatever configuration is chosen should be equipped with advance warnings, cross-bucks, and active flashing stop signals, in addition to the gates.

Under Minn. Stat. § 219.072, the Commissioner is empowered to "direct that the costs, including the costs of the type of warning devices required, be divided between the railroad company and the public authority involved ... if they fail to agree, then as determined by the commissioner on the basis of benefit to the users of each." The Commissioner may also choose to defer the allocation of costs. The record shows that the property owners obtaining access to TH52/55 will be benefiting from the crossing. The property owners will be assessed by the Applicant, the City of Inver Grove Heights, for the costs of the road project, including establishing the at-grade crossing. The only benefit identified for the Union Pacific Railroad is the potential for the TH52/55 at-grade crossing to be eliminated. This alteration will be done to benefit the users of TH52/55, not the Union Pacific Railroad. Should the costs be allocated as part of his proceeding, the entire cost of the proposed at-grade crossing should be borne by the Applicant.

The proposed at-grade crossing is the most reasonable means of addressing an ongoing safety hazard on TH52/55 and providing needed road access to property owners. The safety concerns raised over the project support the requirement of gates in a configuration that will prevent motorists from entering the crossing after the gates have dropped. With a gate configuration that prevents entry into the crossing, the City's Application should be granted.

K.A.N.

^[1] Petition and Application, Attachment 1.

^[2] Petition and Application, at 8.

^[3] Exhibit 5, at 7-8.

^[4] Exhibit 2, October 5, 1999 Memorandum, at Table 1a.

^[5] Exhibit 2, at 3

^[6] Exhibit 5, at 2.

^[7] Exhibit 1.

^[8] Exhibit 4.

^[9] Exhibit 3, at Exhibit VI.

^[10] Minn. Stat. § 219.073.

^[11] The federal standard for at-grade crossing gates is set out in 49 CFR § 234.223, which states:

Each gate arm, when in the downward position, shall extend across each lane of approaching highway traffic and shall be maintained in a condition sufficient to be clearly viewed by approaching highway users. Each gate arm shall start its downward motion not less than three seconds after flashing lights begin to operate and shall assume the horizontal position at least five seconds before the arrival of any normal train movement through the crossing. At those crossings equipped with four quadrant gates, the timing requirements of this section apply to entrance gates only.

^[12] The delay is intended to prevent motorists from becoming trapped between the gates while in the crossing.

^[13] The ALJ notes that the proposed warning devices are more protective than the existing devices currently installed on the more heavily traveled TH52/55. The existing crossing is subject to fewer activations since the Y-intersection is further away than the proposed crossing. The existing crossing is also slated for replacement by a separated-grade crossing to alleviate the present safety hazards created by that crossing. Separated-grade crossings are the most desirable from a safety perspective, since automobile-train collisions are rendered impossible.